

DUWAMISH/GREEN - GREEN RIVER (DUWAMISH) CHINOOK

This stock combines the Green River and Newaukum Creek Chinook stocks, which were treated separately in the 1992 SASSI. Genetic analysis indicates that there is no significant difference between these two sub-populations.

STOCK STATUS

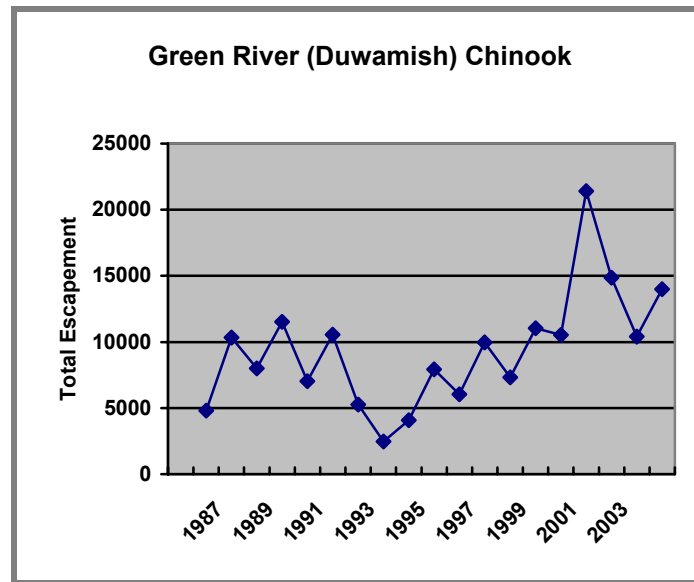
1992 STATUS	2002 STATUS
Healthy	Healthy

STOCK STATUS RATING DATA

USEFULNESS FOR RATING STOCK STATUS: Good

YEAR	TOTAL ESCAPEMENT
1986	4,792
1987	10,338
1988	7,994
1989	11,512
1990	7,035
1991	10,548
1992	5,267
1993	2,476
1994	4,078
1995	7,939
1996	6,026
1997	9,967
1998	7,312
1999	11,025
2000	10,526
2001	21,402
2002	14,857
2003	10,405

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Data are total escapement estimates based on redd counts in the mainstem Green River from RM 35.0 to 41.5 and from RM 41.5 to 43.0, and in Newaukum Creek from RM 0.0 to 3.9. Estimates from 1997 on are based on results from WDFW mark-recapture studies conducted from 2000 to 2002.

Stock status was rated **Healthy** in 2002 because escapements have been strong with no clear negative trend. Hatchery strays contribute heavily to natural Chinook spawning in the Green River drainage.

STOCK DEFINITION

Green River (Duwamish) Chinook were identified as a stock based on their distinct spawning distribution.

SPAWNING DISTRIBUTION: Most spawning generally takes place in the mainstem Green River from RM 25 to 61 and in the lower six miles of Newaukum and Soos creeks.

SPAWNING TIMING: Spawning generally occurs from mid-September to early November.

GENETIC ANALYSIS: Allozyme analysis has shown no significant difference between Newaukum Creek natural spawners and Soos Creek hatchery Chinook. Green River mainstem natural spawners have not been analyzed. Soos Creek Hatchery Chinook were also not significantly different from Issaquah Hatchery Chinook, Skykomish Hatchery fall Chinook or Marblemount Hatchery summer/fall Chinook (Marshall et al. 1995, Marshall 2000).

STOCK ORIGIN

This stock is a **native** stock with **composite** production. Broodstock for the original Soos Creek hatchery Chinook program in this watershed came from native Green River adults either captured on the river or diverted into Soos Creek by a weir placed across the river near the mouth of the creek in the early 1900s. Eggs from out-of-basin hatcheries have occasionally

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been imported to supplement eggs takes at Soos Creek, but the hatchery stock has remained, to a very large extent, a local Soos Creek stock. There is a significant amount of genetic interchange between wild and hatchery-origin Chinook that return to the hatchery rack and are spawned each year, and conversely, between stray hatchery adults and wild fish that intermingle on the spawning grounds.